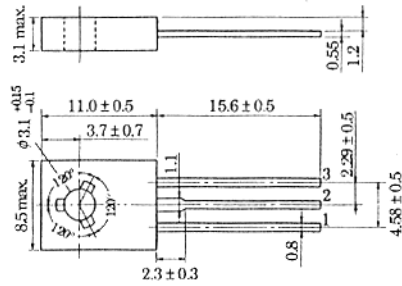


2SC3652

SILICON NPN EPITAXIAL
HIGH FREQUENCY AMPLIFIER



1. Emitter
 2. Collector
 3. Base
- (Dimensions in mm)

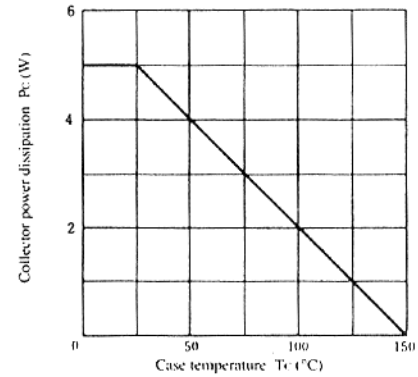
(JEDEC TO-126 MOD.)

■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Item	Symbol	2SC3652	Unit
Collector to base voltage	VCBO	30	V
Collector to emitter voltage	VCEO	20	V
Emitter to base voltage	VEBO	3.5	V
Collector current	IC	0.3	A
Collector peak current	iC(peak)	0.5	A
Collector power dissipation	PC	0.8	W
	PC*	5	W
Junction temperature	Tj	150	°C
Storage temperature	Tstg	-55 to +150	°C

* Value at Tc = 25°C

■ MAXIMUM COLLECTOR DISSIPATION CURVE

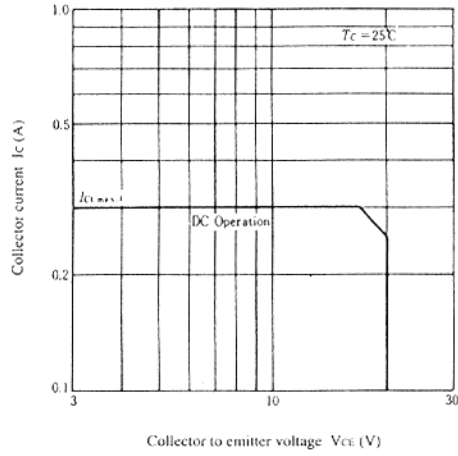


■ ELECTRICAL CHARACTERISTICS (Ta=25°C)

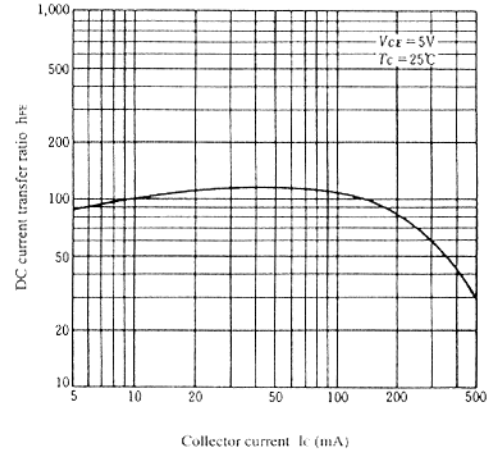
Item	Symbol	Test Condition	min.	typ.	max.	Unit
Collector to emitter breakdown voltage	V(BR)CEO	IC = 10mA, RBE = ∞	20	—	—	V
Collector cutoff current	ICBO	VCB = 25V, IE = 0	—	—	1	mA
Emitter cutoff current	IEBO	VEB = 3V, IC = 0	—	—	1	mA
DC current transfer ratio	hFE	VCE = 5V, IC = 50mA*	40	—	200	
Base to emitter voltage	VBE	VCE = 5V, IC = 300mA*	—	—	1.2	V
Collector to emitter saturation voltage	VCE(sat)	IC = 300mA, IB = 60mA*	—	—	2.0	V
Gain bandwidth product	fT	VCE = 5V, IC = 100mA*	—	1.2	—	GHz
Collector output capacitance	Cob	VCB = 10V, IE = 0, f = 1MHz	—	5	—	pF
Input capacitance	Cib	VEB = 2V, IC = 0, f = 1MHz	—	10	—	pF

* Pulse Test

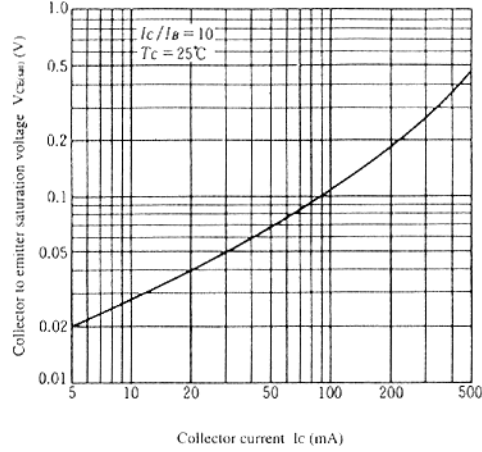
AREA OF SAFE OPERATION



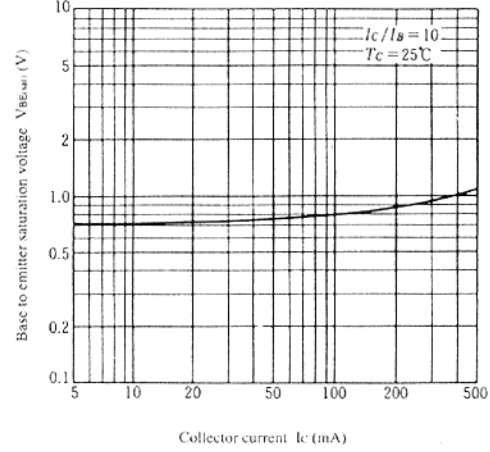
DC CURRENT TRANSFER RATIO VS. COLLECTOR CURRENT



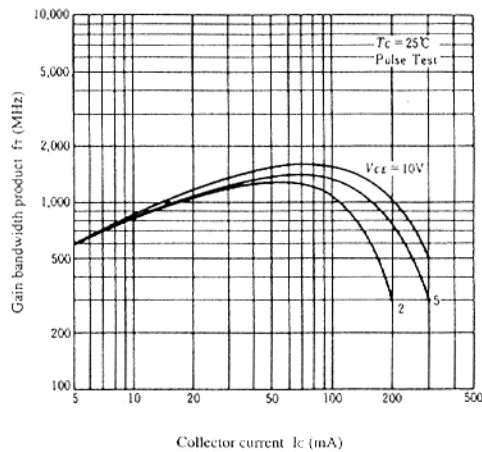
COLLECTOR TO EMITTER SATURATION VOLTAGE VS. COLLECTOR CURRENT



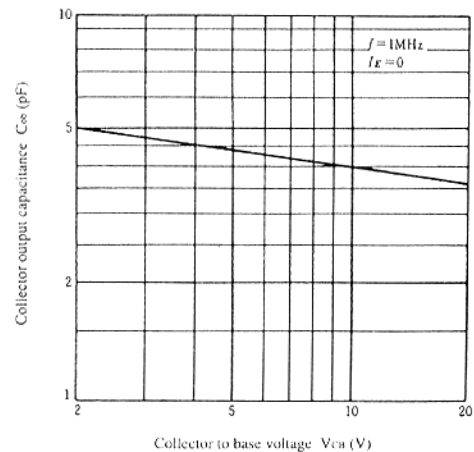
BASE TO EMITTER SATURATION VOLTAGE VS. COLLECTOR CURRENT



GAIN BANDWIDTH PRODUCT VS. COLLECTOR CURRENT



COLLECTOR OUTPUT CAPACITANCE VS. COLLECTOR TO BASE VOLTAGE



2SC3652

